



# Grain Transportation Report

*A weekly publication of the  
Transportation and Marketing Programs/Transportation Services Branch  
[www.ams.usda.gov/tmdtsb/grain](http://www.ams.usda.gov/tmdtsb/grain)*

June 1, 2006

## Contents

Grain  
Transportation  
Indicators

Rail  
Transportation

Barge  
Transportation

Truck  
Transportation

Grain Exports

Ocean  
Transportation

Brazil  
Transportation

Contacts  
and  
Links

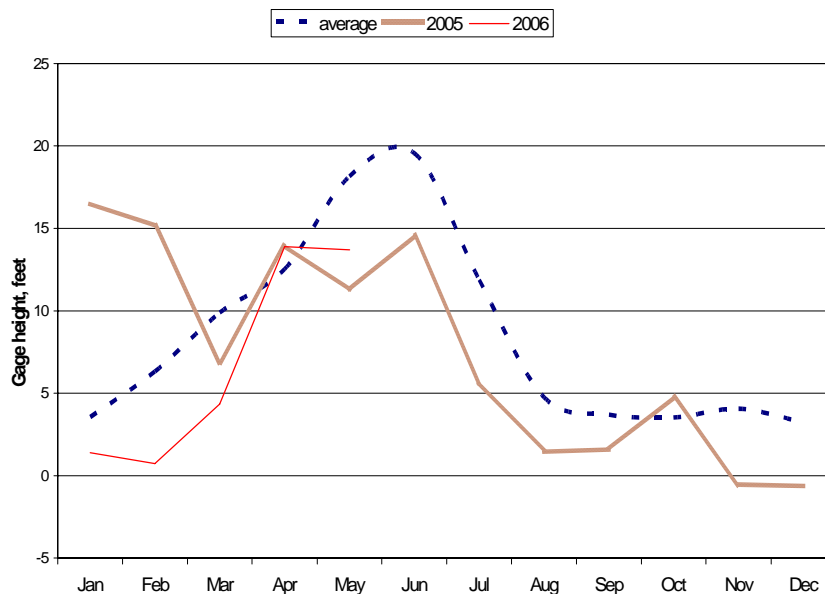
Subscription  
Information

-----

The next  
release is  
June 8, '06

**Water Levels on Mississippi River Up.** While low water conditions persisted on the Mississippi River during 2005, there was a significant increase in water levels during April 2006. Data for May 2006 indicates that water levels are still below average, but are above last year's lower levels. The figure below shows that for the first time since October 2005, the St. Louis gage height<sup>1</sup> was above average. The water level measured 14 feet gage height for the month of April, 12 percent above the monthly average. It is typical during the first 6 months of the year for water levels to increase to peak levels by June, decline during July and August, and then remain stable for the rest of the year. Adequate water levels allow barge companies to load barges to full capacity and to take full economic advantage of the cargo carrying capability of an individual barge. A barge will hold 1,500 tons of grain at a 9-foot draft, gaining about 200 tons of capacity per foot of additional draft.

Mississippi River Gage at St. Louis, MO, by month



Source: U.S. Geological Survey, as of May 25

The Missouri and Illinois Rivers flow into Mississippi River at St. Louis. This segment of the Mississippi must have water levels sufficient to support navigation until higher volumes of water are supplied by the Ohio River further downstream. From 2000 to 2004, the Upper Mississippi River supplied 56 percent of all U.S. corn exports and 35 percent of soybeans exports. For 2000-2004, this represents an average of about \$4.9 billion in export trade.

On May 12, 2006, U.S. Army Corps of Engineers began the long-disputed artificial spring rise or pulse on the Missouri River. The pulse is intended to replicate the historic rise of the river with the spring melting of mountain snow before upstream dams were built. By duplicating nature, the higher water levels caused by the pulse encourage spawning of the endangered pallid sturgeon. By May 30, there were no reports of flood damage caused by the pulse; however, sturgeon monitoring is still on-going.

[Nick.Marathon@usda.gov](mailto:Nick.Marathon@usda.gov)

<sup>1</sup> Gage height is the relative measure of the water surface above the gage datum (zero point). Gage height is often used interchangeably with the more general term, stage, although gage height is more appropriate when used with a gage reading. The St. Louis Gage is located at the Eads Bridge about 15 miles downstream of the confluence with the Missouri River at mile marker 180 on the Mississippi River

# Grain Transportation Indicators

**Table 1--Grain transport cost indicators\***

Week ending	Truck	Rail**	Barge	Ocean	
				Gulf	Pacific
05/31/06	193	86	195	157	183
<b>Compared with last week</b>	↓	↓	↓	Unchanged	↑

\*Indicator: Base year 2000 = 100; Weekly updates include truck = diesel (\$/gallon); rail = nearby secondary rail market (\$/car); barge = spot Illinois River basis (index = percent of tariff rate); and ocean = routes to Japan (\$/metric ton)

\*\*The rail indicator is not an index. It is the difference between the nearby secondary rail market bid for this week and the average bid for year 2000 (+) 100.

Source: Transportation & Marketing Programs/AMS/USDA

**Table 2--Market update: U.S. origins to export position price spreads (\$/bushel)**

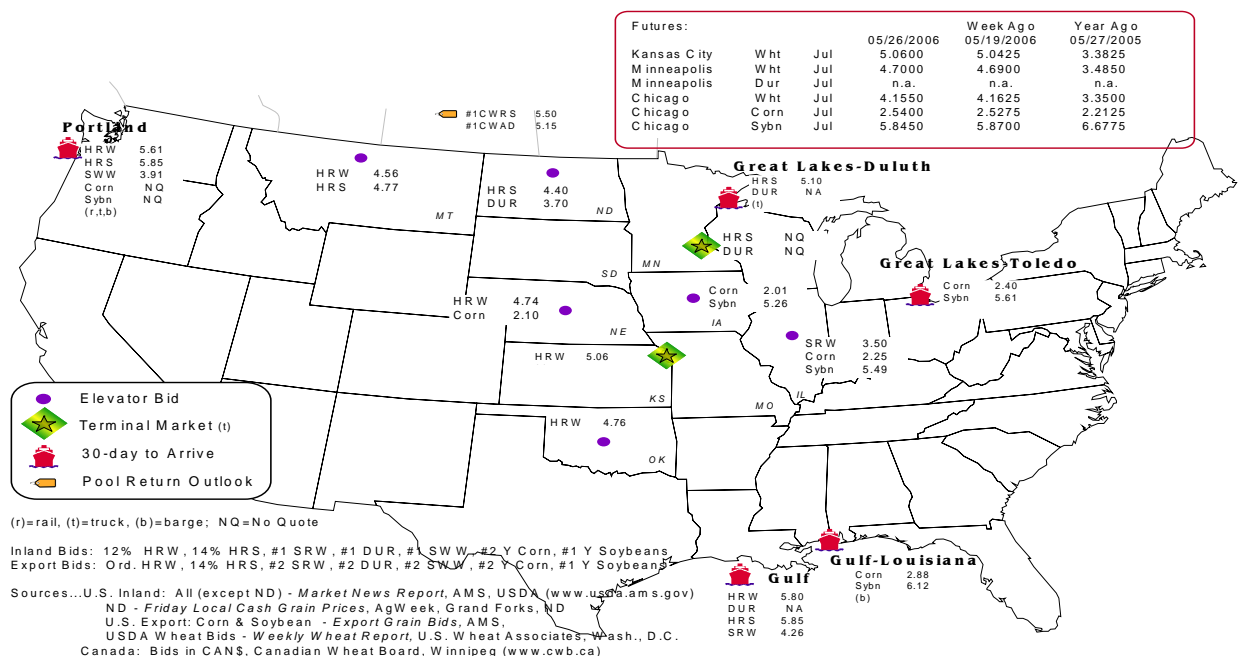
Commodity	Origin--destination	5/26/2006	5/19/2006
Corn	IL--Gulf	-0.63	-0.61
Corn	NE--Gulf	-0.78	-0.75
Soybean	IA--Gulf	-0.86	-0.86
HRW	KS--Gulf	-0.74	-0.76
HRS	ND--Portland	-1.45	-1.48

Note: nq = no quote

Source: Transportation & Marketing Programs/AMS/USDA

The **grain bid summary** illustrates the market relationships for commodities. Positive and negative adjustments in differential between terminal and futures markets, and the relationship to inland market points, are indicators of changes in fundamental market supply and demand. The map may be used to monitor market and time differentials.

## Grain bid summary



# Rail Transportation

**Table 3--Rail deliveries to port (carloads)\***

Week ending	Mississippi Gulf***	Texas Gulf	Cross-Border Mexico	Pacific Northwest	Atlantic & East Gulf	Total
5/24/2006 <sup>p</sup>	768	2,130	339	4,344	426	8,007
5/17/2006 <sup>r</sup>	729	1,781	822	4,036	375	7,743
2006 YTD	34,629	47,242	18,850	86,256	10,238	197,215
2005 YTD	23,317	34,971	28,494	94,548	7,150	188,480
2006 as % of 2005	149	135	66	91	143	105
Total 2005**	50,677	99,864	60,879	223,328	15,752	450,500
Total 2004	43,102	92,073	59,102	209,625	10,986	414,888

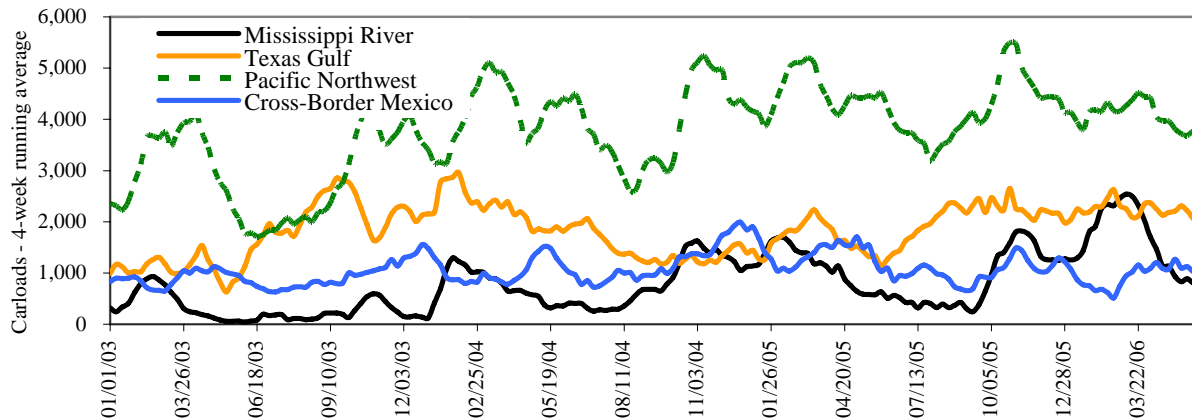
(\*) Incomplete Data; as of 9/22/04, Cross-Border movements included; (\*\*) Includes 53rd week; (\*\*\*) Mississippi Gulf data back to January,

2004 from several new sources has been added; YTD= year-to-date; p=preliminary data; r = revised data

Source: Transportation & Marketing Programs/AMS/USDA

Figure 2

## Rail deliveries to port

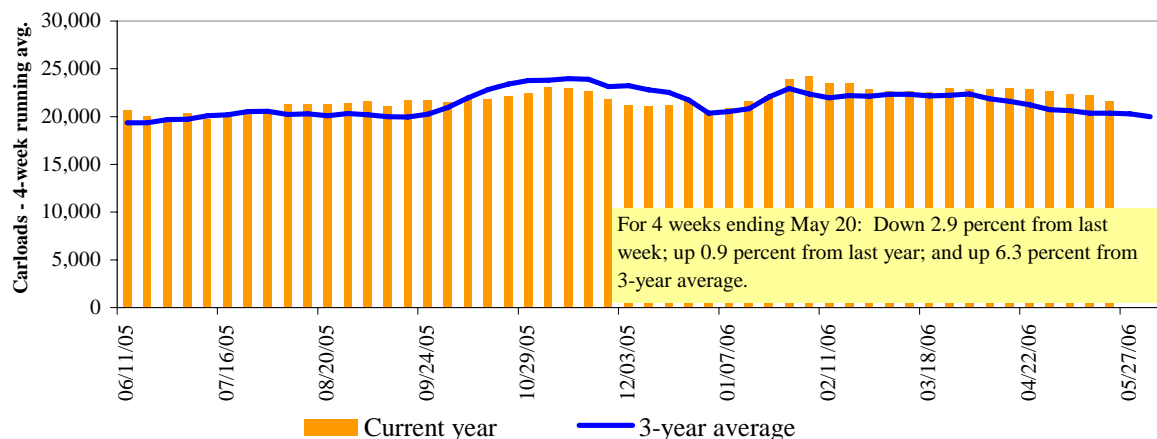


Source: Transportation & Marketing Programs/AMS/USDA

Railroads originate approximately 40 percent of U.S. grain shipments. Trends in these loadings are indicative of market conditions and expectations.

Figure 3

## Total Weekly U.S. Class I Railroad Grain Car Loadings



Source: Association of American Railroads

**Table 4--Class I rail carrier grain car bulletin (grain carloads originated)**

Week ending	East		West			U.S. total	Canada	
	CSXT	NS	BNSF	KCS	UP		CN	CP
05/20/06	2,692	3,009	8,720	723	5,435	20,579	4,753	3,926
This week last year	2,902	3,121	9,003	670	6,405	22,101	3,624	3,971
2006 YTD	62,550	64,708	196,033	11,983	121,711	456,985	93,953	87,975
2005 YTD	60,641	68,066	188,678	12,691	121,615	451,691	87,809	80,166
Last 4 weeks as % of 2005 <sup>1</sup>	106	99	101	121	98	101	119	101
2006 YTD as % of 2005 YTD	103	95	104	94	100	101	107	110
Total 2005	152,060	167,465	476,033	27,459	307,170	1,130,187	225,817	215,145

<sup>1</sup>As a percent of the same period in 2005.

Source: Association of American Railroads (www.aar.org); YTD = year-to-date

**Table 5--Rail car auction offerings\*, week ending 5/27/06 (\$/car)\*\***

Delivery for:	Jun-06	Jul-06	Aug-06
BNSF <sup>1</sup>			
COT/N. grain	no offer	no offer	\$361
COT/S. grain	no offer	no offer	\$221
UP <sup>2</sup>			
GCAS/Region 1	\$1	\$1	no offer
GCAS/Region 2	no offer	no offer	no offer

\*Auction offerings are for single-car and unit train shipments only.

\*\*Average premium/discount to tariff, last auction

<sup>1</sup>BNSF - COT = Certificate of Transportation

N includes: ID, MN, MT, ND, OR, SD, WA, WI, WY, and Manitoba, Canada.

S includes: CO, IA, IL, KS, MO, NE, OK, TX, NM, AZ, CA, UT, and NV.

<sup>2</sup>UP - GCAS = Grain Car Allocation System

Region 1 includes: AR, IL, LA, MO, NM, OK, TX, WI, and Duluth, MN.

Region 2 includes: CO, IA, KS, MN, NE, WY, and Kansas City and St. Joseph, MO.

Source: Transportation & Marketing Programs/AMS/USDA

---

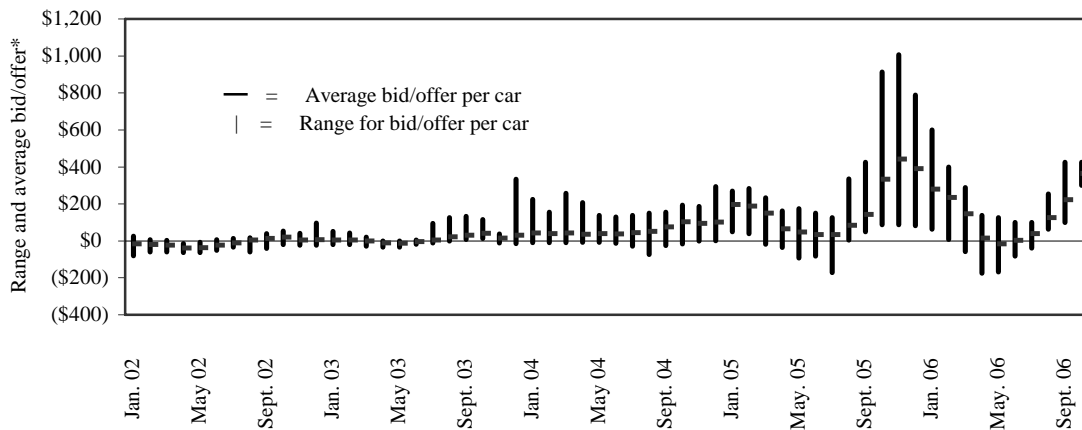
Rail service may be ordered directly from the railroad via **auction** for guaranteed service, or via tariff for nonguaranteed service, or through the secondary railcar market.

---

The **secondary rail market** information reflects trade values for service that was originally purchased from the railroad carrier as some form of guaranteed freight. The **auction and secondary rail** values are indicators of rail service quality and demand/supply.

Figure 4

**Secondary rail car market, delivery month-year**



\*up to 6 months of trading

Source: Transportation & Marketing Programs/AMS/USDA

**Average bid/offer** is the simple average of all the weekly bids/offers over the entire period (up to 6 months) for guaranteed railcars that are traded for delivery in a particular month.

**Range for bid/offer** shows the range of average weekly bids/offers over the entire period (up to 6 months) for guaranteed railcars that are traded for delivery in a particular month.

**Table 6--Weekly secondary rail car market, week ending 5/27/06 (\$/car)\***

	Delivery period			
	Jun-06	Jul-06	Aug-06	Sep-06
BNSF-GF	\$13	\$75	\$253	\$425
Change from last week	-\$11	-\$3	\$3	\$25
UP-Pool	-\$31	\$71	\$191	\$308
Change from last week	-\$23	-\$11	-\$22	-\$13

\*Average premium/discount to tariff, \$/car-last week

Note: Bids listed are market INDICATORS only & are NOT guaranteed prices,

Missing value = no bid quoted; GF = guaranteed freight; Pool = guaranteed pool

Sources: Transportation and Marketing Programs/AMS/USDA

Data from Atwood/ConAgra, Harvest States Co-op, James B. Joiner Co., Tradewest Brokerage Co.

**Table 7--Tariff rail rates for unit and shuttle train shipments\*****Effective date:**

5/1/2006

	<b>Origin Region</b>	<b>Destination Region</b>	<b>Rate/car</b>	<b>Rate/metric ton</b>	<b>Rate/bushel**</b>
<b><u>Unit train*</u></b>					
Wheat	Chicago, IL	Albany, NY	\$1,861	\$20.51	\$0.56
	Kansas City, MO	Galveston, TX	\$2,020	\$22.27	\$0.61
	South Central, KS	Galveston, TX	\$2,450	\$27.01	\$0.74
	Minneapolis, MN	Houston, TX	\$3,020	\$33.29	\$0.91
	St. Louis, MO	Houston, TX	\$2,360	\$26.01	\$0.71
	South Central, ND	Houston, TX	\$4,149	\$45.73	\$1.24
	Minneapolis, MN	Portland, OR	\$3,963	\$43.68	\$1.19
	South Central, ND	Portland, OR	\$3,963	\$43.68	\$1.19
	Northwest, KS	Portland, OR	\$4,490	\$49.49	\$1.35
	Chicago, IL	Richmond, VA	\$2,161	\$23.82	\$0.65
Corn	Chicago, IL	Baton Rouge, LA	\$2,610	\$28.77	\$0.73
	Council Bluffs, IA	Baton Rouge, LA	\$2,470	\$27.23	\$0.69
	Kansas City, MO	Dalhart, TX	\$2,365	\$26.07	\$0.66
	Minneapolis, MN	Portland, OR	\$3,130	\$34.50	\$0.88
	Evansville, IN	Raleigh, NC	\$1,961	\$21.62	\$0.55
	Columbus, OH	Raleigh, NC	\$1,850	\$20.39	\$0.52
	Council Bluffs, IA	Stockton, CA	\$3,606	\$39.75	\$1.01
	Chicago, IL	Baton Rouge, LA	\$2,655	\$29.27	\$0.80
Soybeans	Council Bluffs, IA	Baton Rouge, LA	\$2,515	\$27.72	\$0.75
	Minneapolis, MN	Portland, OR	\$3,610	\$39.79	\$1.08
	Evansville, IN	Raleigh, NC	\$1,961	\$21.62	\$0.59
	Chicago, IL	Raleigh, NC	\$2,561	\$28.23	\$0.77
<b><u>Shuttle Train*</u></b>					
Wheat	St. Louis, MO	Houston, TX	\$1,820	\$20.06	\$0.55
	Minneapolis, MN	Portland, OR	\$3,763	\$41.48	\$1.13
Corn	Fremont, NE	Houston, TX	\$2,124	\$23.41	\$0.59
	Minneapolis, MN	Portland, OR	\$3,024	\$33.33	\$0.85
Soybeans	Council Bluffs, IA	Houston, TX	\$2,412	\$26.59	\$0.72
	Minneapolis, MN	Portland, OR	\$3,170	\$34.94	\$0.95

\*A unit train refers to shipments of at least 52 cars. Shuttle train rates are available for qualified shipments of more than 100 cars that meet railroad efficiency requirements.

\*\*Approximate load per car = 100 short tons: corn 56 lbs./bu., wheat & soybeans 60 lbs./bu.

Sources: [www.bnsf.com](http://www.bnsf.com), [www.cpr.ca](http://www.cpr.ca), [www.csx.com](http://www.csx.com), [www.uprr.com](http://www.uprr.com)

**Table 8--Tariff rail rates for U.S. bulk grain shipments to Mexico**

Effective date: 5/1/06

Commodity	Origin State	Border crossing region	Train size	Rate <sup>1</sup>	Rate/metric ton	Rate/bushel**
Wheat	KS	Brownsville, TX	Shuttle	\$2,851	\$29.13	\$0.79
	ND	Eagle Pass, TX	Unit	\$4,211	\$43.03	\$1.17
	OK	El Paso, TX	Shuttle	\$2,235	\$22.84	\$0.62
	OK	El Paso, TX	Unit	\$2,432	\$24.85	\$0.68
	AR	Laredo, TX	Unit	\$2,383	\$24.35	\$0.66
	IL	Laredo, TX	Unit	\$3,188	\$32.57	\$0.89
	MT	Laredo, TX	Shuttle	\$3,980	\$40.67	\$1.11
	TX	Laredo, TX	Shuttle	\$2,165	\$22.12	\$0.60
	MO	Laredo, TX	Shuttle	\$2,731	\$27.90	\$0.76
	WI	Laredo, TX	Unit	\$3,405	\$34.79	\$0.95
Corn	NE	Brownsville, TX	Shuttle	\$3,543	\$36.20	\$0.92
	NE	Brownsville, TX	Unit	\$3,623*	\$37.02	\$0.94
	IA	Eagle Pass, TX	Unit	\$3,773	\$38.55	\$0.98
	MO	Eagle Pass, TX	Shuttle	\$3,364*	\$34.37	\$0.87
	NE	Eagle Pass, TX	Shuttle	\$3,764*	\$38.46	\$0.98
	IA	Laredo, TX	Shuttle	\$3,696	\$37.76	\$0.96
Soybean	IA	Brownsville, TX	Shuttle	\$3,318	\$33.90	\$0.92
	MN	Brownsville, TX	Shuttle	\$3,614	\$36.93	\$1.00
	NE	Brownsville, TX	Shuttle	\$3,127	\$31.95	\$0.87
	NE	Eagle Pass, TX	Shuttle	\$3,203	\$32.73	\$0.89
	IA	Laredo, TX	Unit	\$3,357	\$34.30	\$0.93

A unit train refers to shipments of at least 52 cars. Shuttle train are available for qualified shipments of more than 100 cars that meet railroad efficiency requirements.

<sup>1</sup>Rates are based upon published tariff rates for high-capacity rail cars.

\*High-capacity rate not available, rate estimated using published low-capacity tariff rate x 1.08

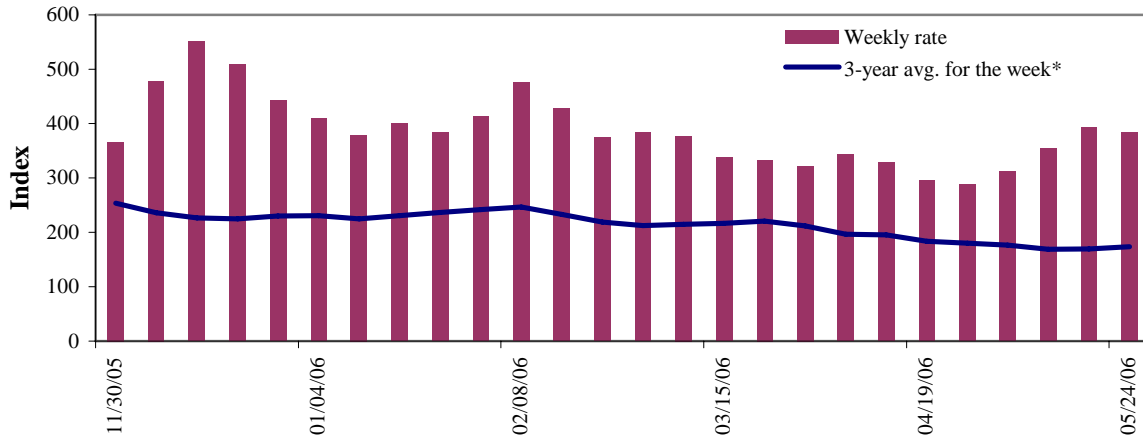
\*\*Approximate load per car = 97.87 metric tons: Corn 56 lbs/bu, Wheat & Soybeans 60 lbs/bu

Sources: www.bnsf.com, www.uprr.com

# Barge Transportation

Figure 5

**Illinois River barge rate index - quotes**



Note: Index = percent of tariff rate; \*4-week moving average

Source: Transportation & Marketing Programs/AMS/USDA

The **Illinois River barge rate index** averaged 183 percent of the **benchmark tariff rates** between 1999 and 2001, based on weekly market quotes. The **index**, along with **rate quotes** and **futures market bids** are indicators of grain transport supply and demand.

**Table 9--Barge rate quotes: southbound barge freight**

Location	5/24/2006	5/17/2006	June '06	August'06
Twin Cities	447	434	458	512
Mid-Mississippi	406	407	416	473
Illinois River	384	393	399	466
St. Louis	317	326	348	416
Lower Ohio	333	312	344	421
Cairo-Memphis	302	291	326	409

Index = percent of tariff, based on 1976 tariff benchmark rate

Source: Transportation & Marketing Programs/AMS/USDA

## Calculating barge rate per ton:

$(\text{Index} * 1976 \text{ tariff benchmark rate per ton}) / 100$

Select applicable index from market quotes included in tables on this page. The 1976 benchmark rates per ton are provided in map (see figure 6).

Note: The Illinois barge rate is for Beardstown, IL, La Grange Lock & Dam (L&D 8).

Figure 6

**Benchmark tariff rates**

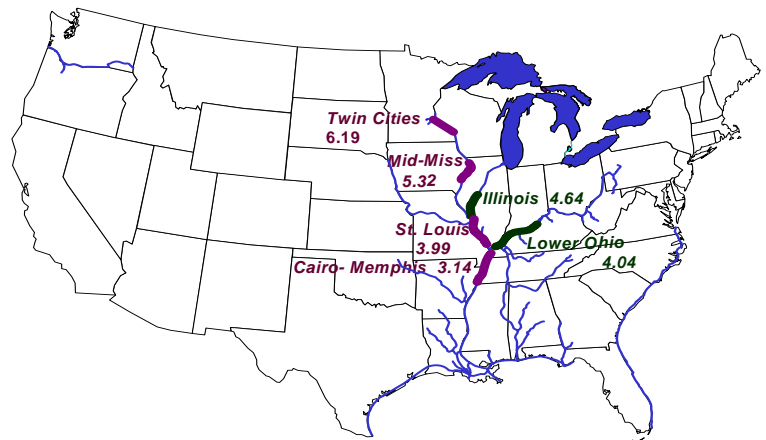
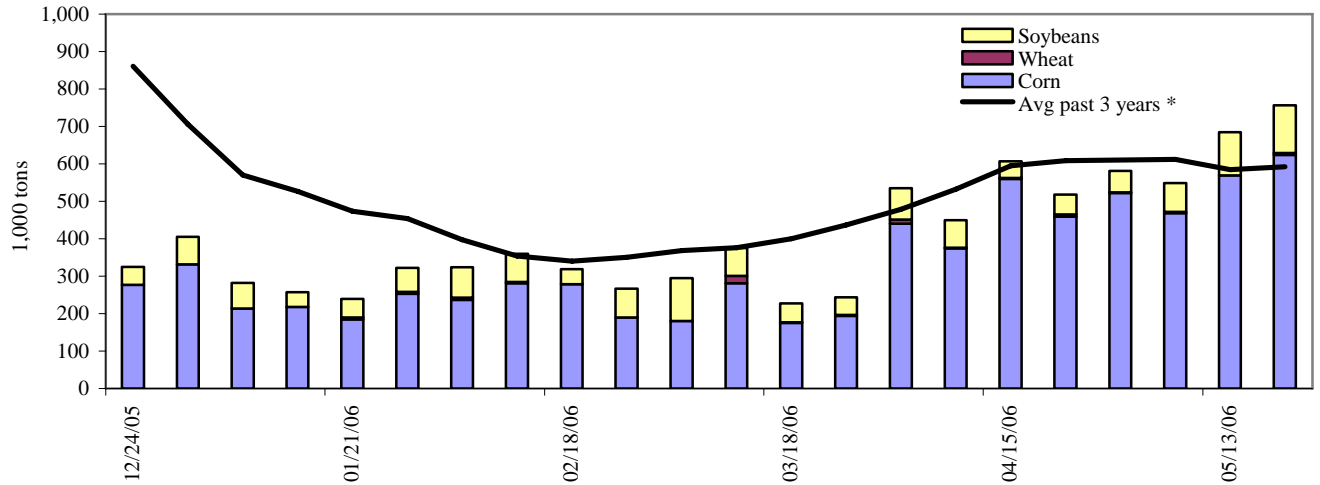




Figure 7

**Barge movements on the Mississippi River (Locks 27 - Granite City, IL)**

\* 4-week moving average

Source: Transportation & Marketing Programs/AMS/USDA

**Table 10--Barge grain movements (1,000 tons)**

Week ending 5/20/2006	Corn	Wheat	Soybean	Other	Total
<b>Mississippi River</b>					
Rock Island, IL (L15)	256	0	46	0	302
Winfield, MO (L25)	397	2	89	0	487
Alton, IL (L26)	635	5	129	0	769
Granite City, IL (L27)	624	5	127	0	756
<b>Illinois River (L8)</b>	218	3	30	0	251
<b>Ohio River (L52)</b>	55	2	24	0	80
<b>Arkansas River (L1)</b>	0	3	14	6	22
2006 YTD	9,177	449	2,622	316	12,564
2005 YTD	7,977	606	3,154	302	12,039
2006 as % of 2005 YTD	115	74	83	105	104
Total 2005	23,761	1,620	7,276	731	33,388

YTD (year-to-date) and calendar year total includes Miss/27, Ohio/52, and Ark/1; "Other" refers to oats, barley, sorghum, and rye.

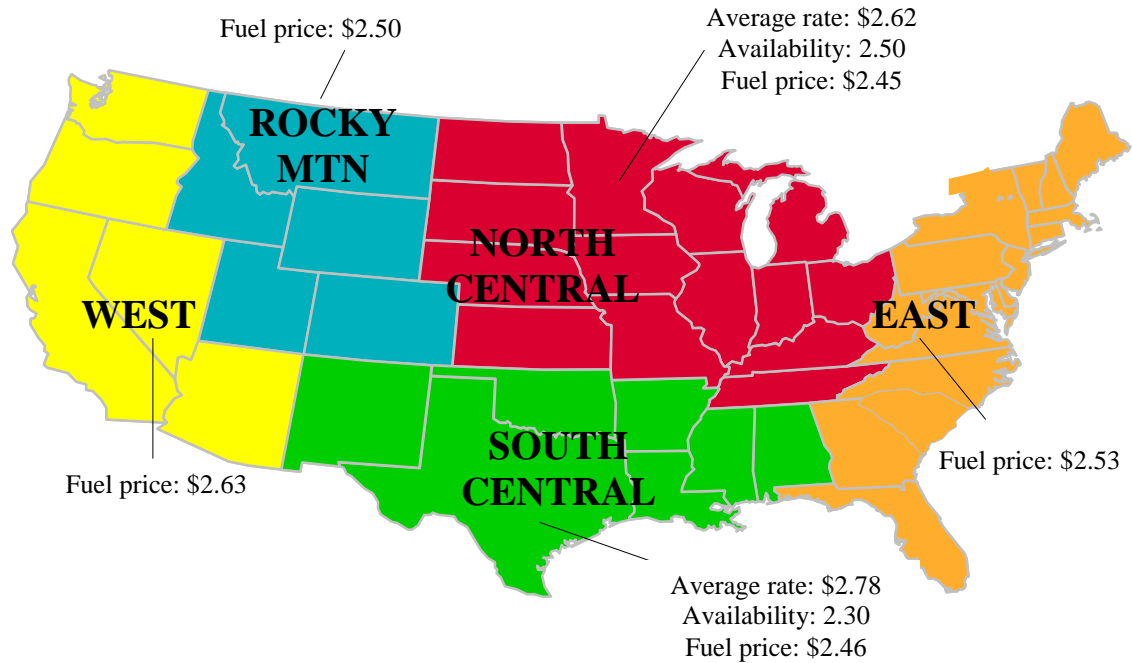
Source: U.S. Army Corp of Engineers ([www.mvr.usace.army.mil/mvrirmi/omni/webbrpts/default.asp](http://www.mvr.usace.army.mil/mvrirmi/omni/webbrpts/default.asp))

Note: Total may not add exactly, due to rounding

# Truck Transportation

Figure 8

U.S. grain truck market advisory, 1<sup>st</sup> quarter 2006\*



\*Average rate per loaded mile, based on truck rates for trips of 25, 100, and 200 miles

Note: Fuel prices are a quarterly average (unit per gallon)

Fuel price data source: Energy Information Administration, U.S. Department of Energy, [www.eia.doe.gov](http://www.eia.doe.gov)

Table 11--U.S. grain truck market overview, 1st quarter 2006

Region	25 miles	100 miles	200 miles	Truck availability	Truck activity	Future truck activity
	<sup>1</sup> Rate per mile			Rating compared to same quarter last year		
				1=Very easy to 5=Very difficult	1=Much lower to 5=Much higher	
National average <sup>2</sup>	3.71	2.46	1.97	2.3	2.7	2.9
North Central region	3.60	2.35	1.90	2.5	2.8	3.1
Rocky Mountain	4.40	3.52	1.51	1.5	3.0	3.0
South Central	3.85	2.36	2.12	2.3	2.5	2.5
West	n/a	n/a	n/a	n/a	n/a	n/a

<sup>1</sup>Rates are based on trucks with 80,000 lb gross vehicle weight limit

<sup>2</sup>National average is based on rates received from various states, but not every state is represented.

Source: Transportation and Marketing Programs/AMS/USDA

The **weekly diesel price** provides a proxy for trends in U.S. truck rates. Diesel fuel is a significant expense for truck grain movements, accounting for 37 percent of the estimated variable cost.

**Table 12--Retail on-highway diesel prices\*, week ending 5/29/06 (US\$/gallon)**

Region	Location	Price	Change from	
			Week ago	Year ago
I	East Coast	2.873	-0.004	0.685
	New England	2.966	-0.016	0.646
	Central Atlantic	2.987	0.000	0.703
	Lower Atlantic	2.815	-0.005	0.681
II	Midwest <sup>1</sup>	2.824	-0.012	0.713
III	Gulf Coast <sup>2</sup>	2.798	-0.003	0.681
IV	Rocky Mountain	3.044	0.020	0.865
V	West Coast	3.161	-0.014	0.844
	California	3.227	-0.007	0.860
Total	U.S.	2.882	-0.006	0.722

\*Diesel fuel prices include all taxes.

Source: Energy Information Administration/U.S. Department of Energy ([www.eia.doe.gov](http://www.eia.doe.gov))

<sup>1</sup>Same as North Central

<sup>2</sup>Same as South Central

# Grain Exports

**Table 13--U.S. export balances (1,000 metric tons)**

Week ending 1/	Wheat						Corn	Soybeans	Total
	HRW	SRW	HRS	SWW	DUR	All wheat			
5/18/2006	678	244	518	347	35	1,821	8,816	1,818	12,455
This week year ago	698	99	703	261	104	1,865	6,734	1,652	10,251
Cumulative exports-crop year 2/									
2005/06 YTD	10,253	1,979	7,142	4,122	912	24,408	36,201	21,266	81,875
2004/05 YTD	9,177	3,210	7,796	4,707	640	25,531	32,747	27,382	85,660
2005/06 as % of 2004/05	112	62	92	88	143	96	111	78	96
2004/05 Total	9,407	3,217	8,083	4,773	686	26,117	44,953	29,878	100,948
2003/04 Total	12,697	3,785	6,928	4,895	1,053	29,359	47,704	24,108	101,171

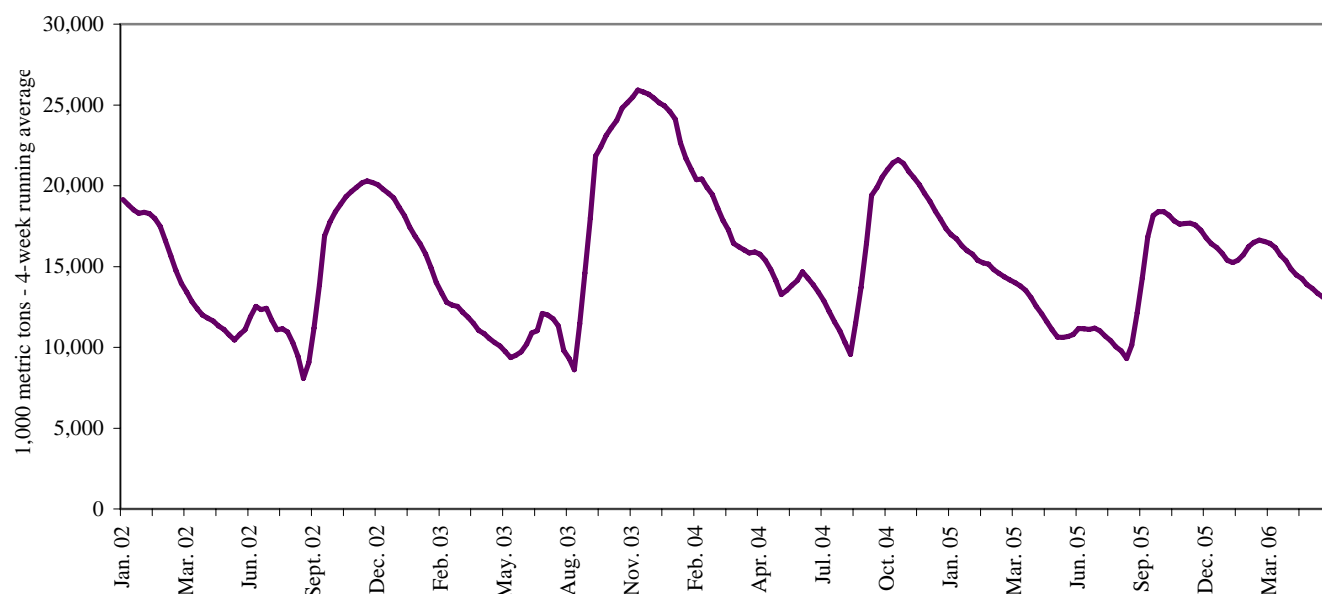
Note: YTD = year-to-date. Crop year: wheat = 6/01-5/31, corn & soybeans = 9/01-8/31, 1/ = Current unshipped export sales to date

2/ = Shipped export sales to date

Source: Foreign Agricultural Service/USDA ([www.fas.usda.gov](http://www.fas.usda.gov))

Figure 9

**U.S. grain, unshipped export balance, including wheat, corn, and soybean sales**



Source: Foreign Agricultural Service/USDA ([www.fas.usda.gov](http://www.fas.usda.gov))

**Table 14--Select U.S. port regions - grain inspections for export (1,000 metric tons)**

Week ending	Pacific Region			Mississippi Gulf			Texas Gulf			Port Region total		
	Wheat	Corn	Soybeans	Wheat	Corn	Soybeans	Wheat	Corn	Soybeans	Pacific	Mississippi	Texas
05/25/06	180	262	66	132	783	139	74	77	0	508	1,053	151
2006 YTD*	4,402	3,886	2,296	1,705	14,047	6,514	2,785	1,023	15	10,584	22,266	3,823
2005 YTD	4,431	3,970	3,123	2,197	10,942	7,631	2,375	270	6	11,524	20,770	2,650
2006 as % of 2005	99	98	74	78	128	85	117	379	260	92	107	144
2005 Total *	10,801	10,104	6,225	4,643	28,130	14,793	7,743	810	36	27,130	47,567	8,589

Source: Grain Inspection, Packers and Stockyards Administration/USDA ([www.gipsa.usda.gov](http://www.gipsa.usda.gov)); YTD: year-to-date; \*includes weekly revisions

The United States exports approximately one-quarter of the grain it produces. On average, it includes nearly 45 percent of U.S.-grown wheat, 35 percent of U.S.-grown soybeans, and 20 percent of the U.S.-grown corn. Approximately 49 percent of these U.S. export grain shipments departed through the Mississippi Gulf region in 2005.

Figure 10

**U.S. grain inspected for export (wheat, corn, and soybeans)**

Source: Grain Inspection, Packers and Stockyards Administration/USDA ([www.gipsa.usda.gov](http://www.gipsa.usda.gov))

# Ocean Transportation

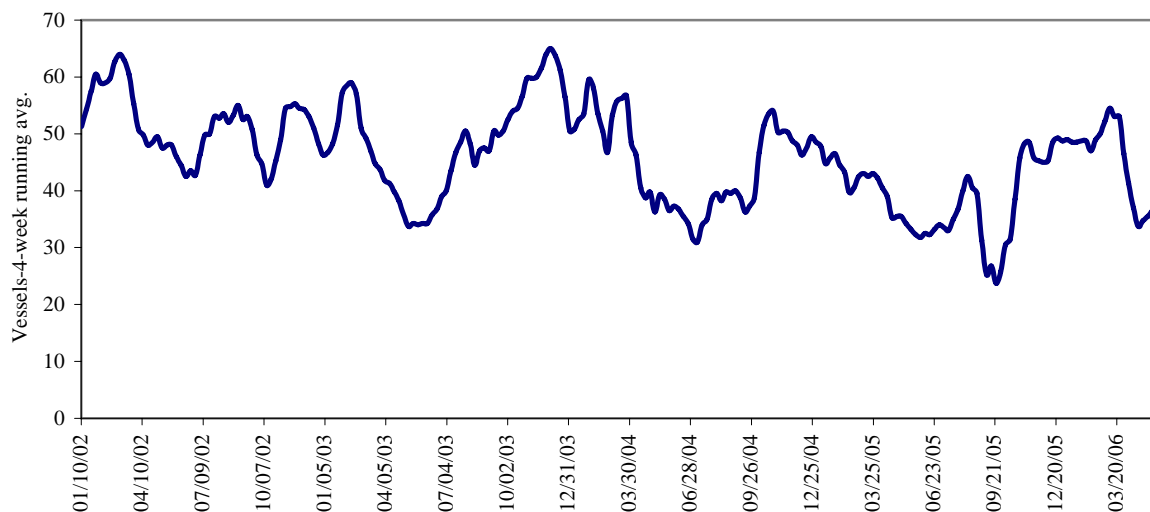
**Table 15--Weekly port region grain ocean vessel activity (number of vessels)**

Date	Gulf			Pacific Northwest	Vancouver B.C.
	In port	Loaded 7-days	Due next 10-days	In port	In port
5/25/2006	26	46	48	5	n/a
5/18/2006	22	40	58	7	n/a
2005 range	(11..57)	(10..56)	(18..76)	(2..16)	(0..17)
2005 avg.	27	39	53	9	7

Source: Transportation & Marketing Programs/AMS/USDA

Figure 11

**Gulf Port grain vessel loading (past 7 days)**



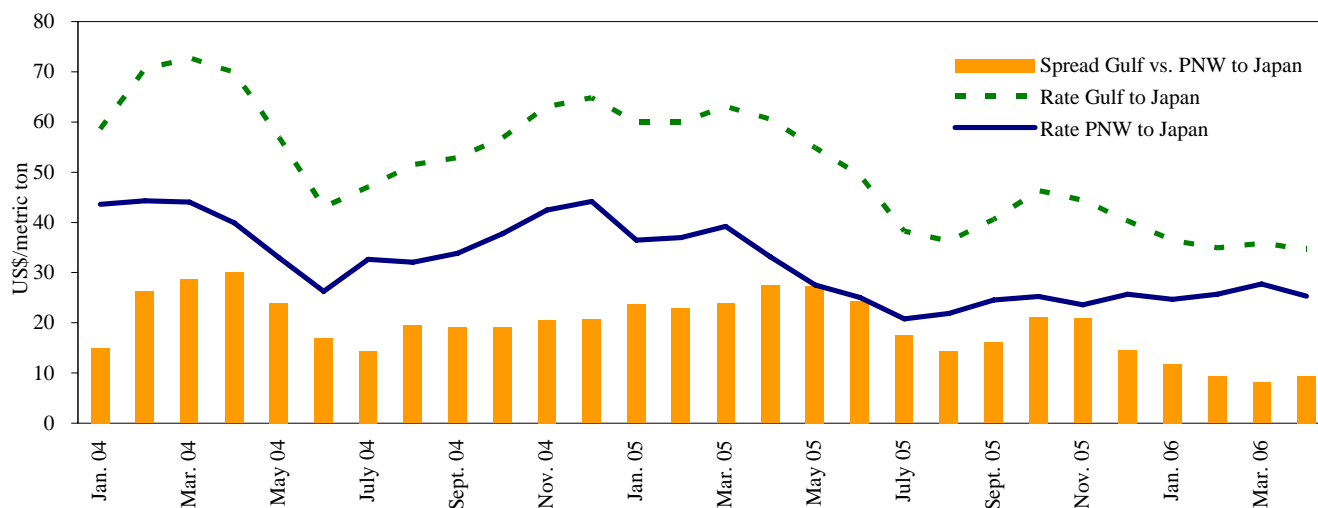
Source: Transportation & Marketing Programs/AMS/USDA

**Table 16--Quarterly ocean freight rates (average rates & percentage changes) (US\$/metric ton)**

Countries/ regions	2006 1 <sup>st</sup> qtr	2005 1 <sup>st</sup> qtr	Percent change	Countries/ regions	2006 1 <sup>st</sup> qtr	2005 1 <sup>st</sup> qtr	Percent change
<b>Gulf to</b>				<b>Pacific NW to</b>			
Japan	37.45	60.18	-38	Japan	---	---	---
China	30.92	57.50	-46	<b>Argentina/Brazil to</b>			
N. Africa	---	48.00	---	China	27.50	---	---
				N. Africa	---	59.25	---
				Mediterranean	29.00	---	---
				N. Europe	33.00	---	---

Source: Maritime Research, Inc. (www.maritime-research.com)

Figure 12

**Grain vessel rates, U.S. to Japan**

Source: Baltic Exchange (www.balticexchange.com)

**Table 17--Ocean freight rates for selected shipments, week ending 5/27/06**

Export region	Import region	Grain	Month	Volume loads (metric tons)	Freight rate (\$/metric ton)
U.S. Gulf	China	Hvy Grain	Feb 20/28	55,000	31.00
U.S. Gulf	N. China	Hvy Grain	Feb 20/28	55,000	29.75
U.S. Gulf	Sudan*	Sorghum	May 11/17	16,000	85.86
United Kingdom	Thailand	Wheat	Feb 25/Mar 10	42,000	21.50
Australia	Germany	Canola	Apr 15/30	55,000	34.00
Brazil	N. France	Grains	Mar 12/20	25,000	26.00
River Plate	Algeria	Hvy Grain	May 20/25	25,000	37.00
River Plate	Algeria	Hvy Grain	May 6/12	34,000	32.50
River Plate	Poland	Hvy Grain	May 20/Jul 10	30,000	42.00
River Plate	Poland	Hvy Grain	May 25/30	20,000	43.00
River Plate	Poland	Grains	Apr 1/10	25,000	34.75

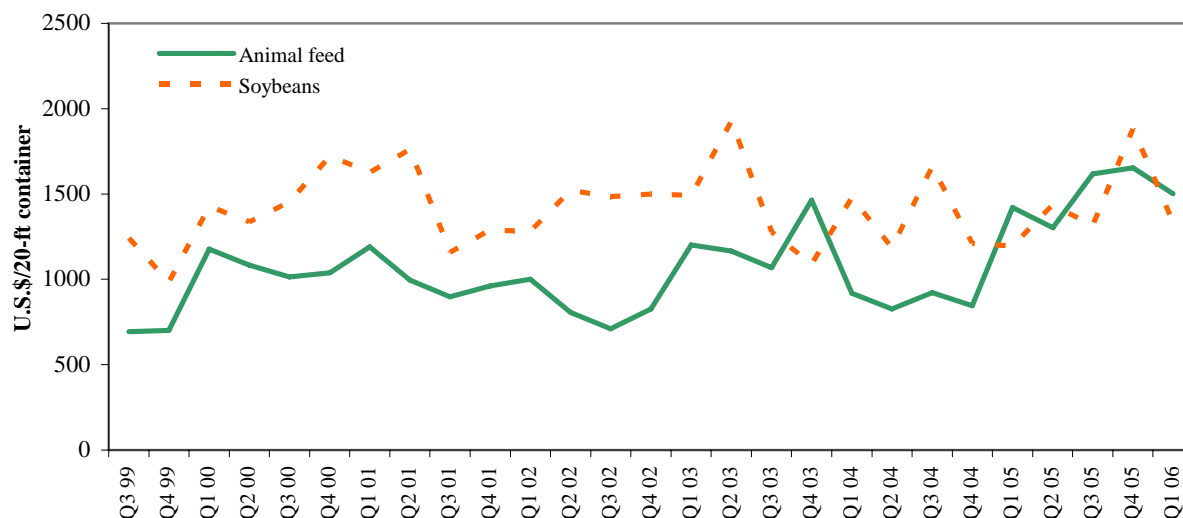
Rates shown are for metric ton (2,204.62 lbs. = 1 metric ton), F.O.B., except where otherwise indicates; op = option

\*75 percent of food aid from the United States is required to be shipped on U.S. flag vessels. The vessels are limited in availability resulting in higher rates. In addition, destinations receiving food aid generally lack adequate port unloading facilities, requiring the vessel to remain in port for a longer duration than normal.

Source: Maritime Research Inc. (www.maritime-research.com)

Figure 13

### Ocean Rates<sup>1</sup> for Containerized Shipments to Selected Asian Countries



<sup>1</sup>Rates are weighted by shipping line market share and destination country.

Countries include: Animal Feed: Busan-Korea (7%), Kaohsiung-Taiwan (42%), Tokyo-Japan (28%), Hong Kong (13%), Bangkok-Thailand (10%) and soybeans: Busan-Korea (1%), Keelung-Taiwan (81%), Tokyo-Japan (17%), Bangkok-Thailand (<1%), Hong Kong (1%)

Source: Ocean Rate Bulletin, Quarter 1, 2006, Transportation & Marketing Programs/AMS/USDA

---

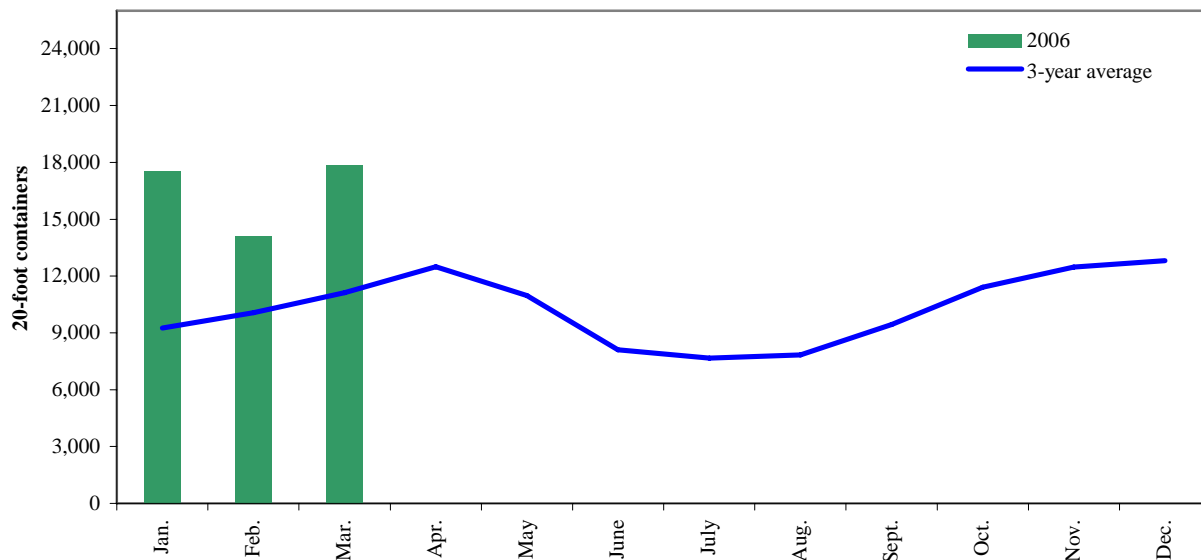
Container ocean freight rates – average rate per twenty-foot equivalent unit (TEU) weighted by shipping line market share and trade route.

During 2005, containers were used to transport 4 percent of total U.S. grain exported, and 5 percent of total U.S. grain exported to Asia.

---

Figure 14

### Monthly Shipments of Containerized Grain to Asia



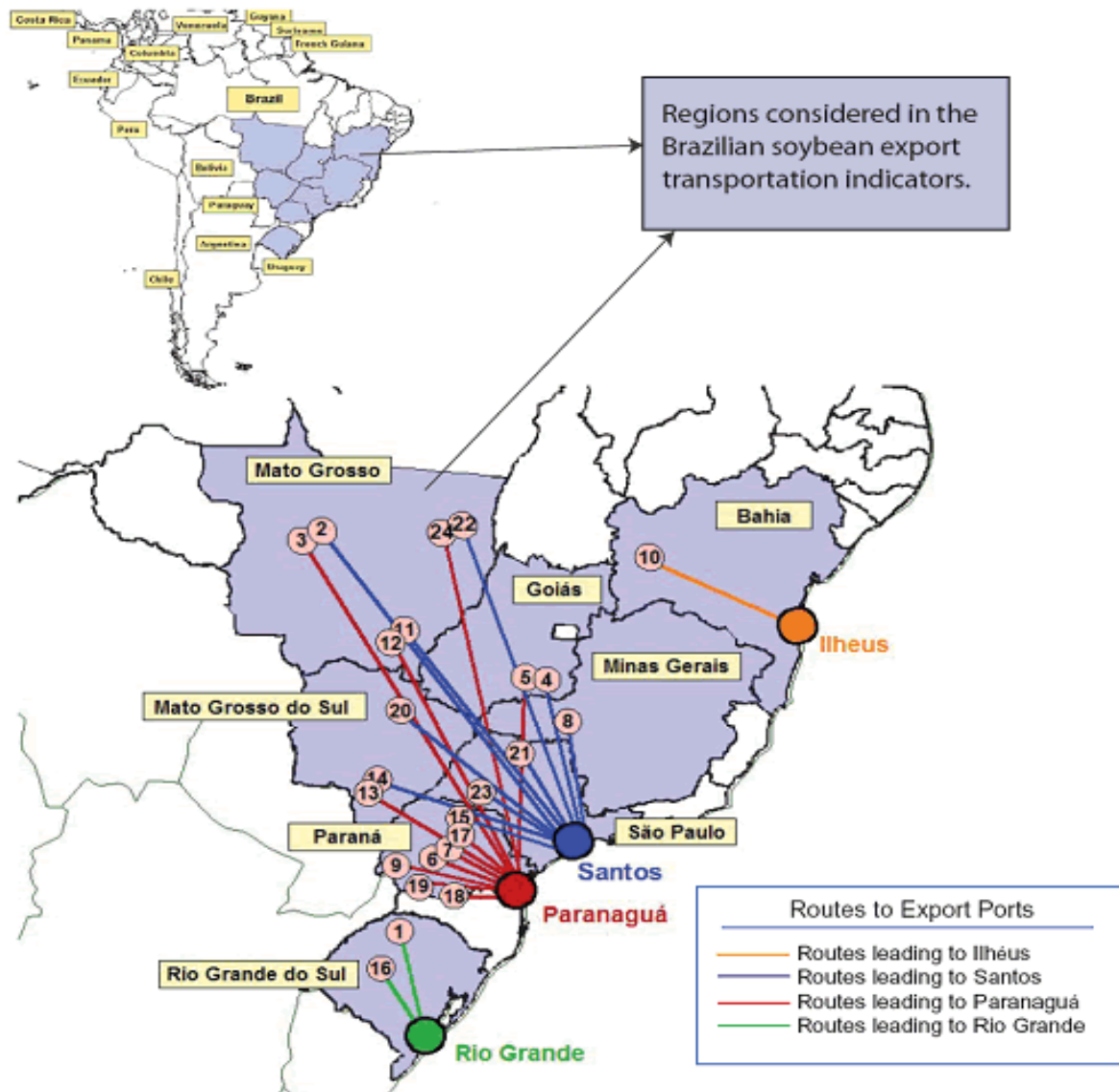
Source: Port Import Export Reporting Service (PIERS), *Journal of Commerce*



# Brazil Transportation

Figure 15

Routes and regions considered in the Brazilian soybean export transportation indicator<sup>1</sup>



<sup>1</sup>Regions comprised 84 percent of Brazilian soybean production, 2003  
Source: USDA/AMS & ESALQ - University of São Paulo (USP), Brazil

**Table 18--Quarterly costs of transporting Brazilian soybeans from selected routes to Shanghai, China and Hamburg, Germany**

2006						2006				
	1st qtr.	2nd qtr.	3rd qtr.	4th qtr.	Avg.	1st qtr.	2nd qtr.	3rd qtr.	4th qtr.	Avg
Shanghai, China										
	North MT <sup>1</sup> - Santos <sup>2</sup> --\$/mt--					North MT <sup>1</sup> - Paranagua <sup>2</sup> --\$/mt--				
Truck	86.22					84.65				
Ocean	50.13					49.13				
Total transportation	136.36					133.78				
Farm Value <sup>3</sup>	157.86					157.86				
Landed Cost	294.22					291.65				
Transport % of landed cost	46.35					45.87				
	Southeast MT <sup>1</sup> - Santos <sup>2</sup> --\$/mt--					North Center PR <sup>1</sup> - Paranagua <sup>2</sup> --\$/mt--				
Truck	65.24					19.41				
Ocean	50.13					49.13				
Total transportation	115.37					68.54				
Farm Value <sup>3</sup>	157.86					206.88				
Landed Cost	273.24					275.42				
Transport % of landed cost	42.22					24.89				
	South GO <sup>1</sup> - Santos <sup>2</sup> --\$/mt--					Northwest RS <sup>1</sup> - Rio Grande <sup>2</sup> --\$/mt--				
Truck	42.49					13.54				
Ocean	50.13					48.63				
Total transportation	92.62					62.17				
Farm Value <sup>3</sup>	180.71					202.56				
Landed Cost	273.33					264.73				
Transport % of landed cost	33.89					23.49				
	Hamburg, Germany									
	North MT <sup>1</sup> - Santos <sup>2</sup> --\$/mt--					North MT <sup>1</sup> - Paranagua <sup>2</sup> --\$/mt--				
Truck	86.22					84.65				
Ocean	39.51					38.51				
Total transportation	125.73					123.16				
Farm Value <sup>3</sup>	157.86					157.86				
Landed Cost	283.60					281.02				
Transport % of landed cost	44.34					43.83				
	Southeast MT <sup>1</sup> - Santos <sup>2</sup> --\$/mt--					North Center PR <sup>1</sup> - Paranagua <sup>2</sup> --\$/mt--				
Truck	65.24					19.41				
Ocean	39.51					38.51				
Total transportation	104.75					57.92				
Farm Value <sup>3</sup>	157.86					206.88				
Landed Cost	262.61					264.79				
Transport % of landed cost	39.89					21.87				
	South GO <sup>1</sup> - Santos <sup>2</sup> --\$/mt--					Northwest RS <sup>1</sup> - Rio Grande <sup>2</sup> --\$/mt--				
Truck	42.49					13.54				
Ocean	39.51					37.06				
Total transportation	82.00					50.60				
Farm Value <sup>3</sup>	180.71					202.56				
Landed Cost	262.71					253.16				
Transport % of landed cost	31.21					19.99				

<sup>1</sup>Producing regions: RS = Rio Grande Do Sul, MT= Mato Grosso, GO = Goiás, PR = Paraná

<sup>2</sup>Export ports

<sup>3</sup>Source: Companhia Nacional de Abastecimento (CONAB) [www.conab.gov.br](http://www.conab.gov.br)

Source: ESALQ/ USP (University of São Paulo, Brazil) and USDA/AMS

**Table 19--Truck rates for selected Brazilian soybean export transportation routes, 1<sup>st</sup> quarter 2006**

Route #	Origin <sup>1</sup> (reference city)	Destination	Distance (miles) <sup>2</sup>	Share (%) <sup>3</sup>	Freight price (per 100 miles) <sup>4</sup>
1	Northwest RS <sup>5</sup> (Cruz Alta)	Rio Grande	288	16.6	4.70
2	North MT(Sorriso)	Santos	1190	10.1	7.25
3	North MT(Sorriso)	Paranaguá	1262	9.5	6.71
4	South GO(Rio Verde)	Santos	587	7.0	7.24
5	South GO(Rio Verde)	Paranaguá	726	5.6	5.94
6	North Center PR(Londrina)	Paranaguá	268	4.4	7.24
7	Western Center PR(Mamborê)	Paranaguá	311	3.9	6.57
8	Triangle MG(Uberaba)	Santos	339	3.8	10.01
9	West PR(Assis Chateaubriand)	Paranaguá	377	3.7	6.30
10	West Extreme BA(São Desidério)	Ilhéus	544	3.6	8.07
11	Southeast MT(Primavera do Leste)	Santos	901	3.6	7.24
12	Southeast MT(Primavera do Leste)	Paranaguá	975	3.3	6.48
13	Southwest MS(Maracaju)	Paranaguá	612	3.1	7.58
14	Southwest MS(Maracaju)	Santos	652	2.9	9.48
15	West PR(Assis Chateaubriand)	Santos	550	2.5	6.00
16	Western Center RS(Tupanciretã)	Rio Grande	273	2.4	5.86
17	Southwest PR(Chopinzinho)	Paranaguá	291	2.3	9.40
18	Eastern Center PR(Castro)	Paranaguá	130	2.3	9.91
19	South Center PR(Guarapuava)	Paranaguá	204	2.1	8.55
20	North Center MS(São Gabriel do Oeste)	Santos	720	2.0	6.09
21	Ribeirão Preto SP(Guairá)	Santos	314	1.5	8.42
22	Northeast MT(Canarana)	Santos	950	1.4	8.23
23	Assis SP(Palmital)	Santos	285	1.2	7.81
24	Northeast MT(Canarana)	Paranaguá	1075	1.2	7.30
<b>Average</b>			<b>626</b>	<b>100</b>	<b>6.91</b>

<sup>1</sup>Although each origin region comprises several cities, the main city is considered as a reference to establish the freight price

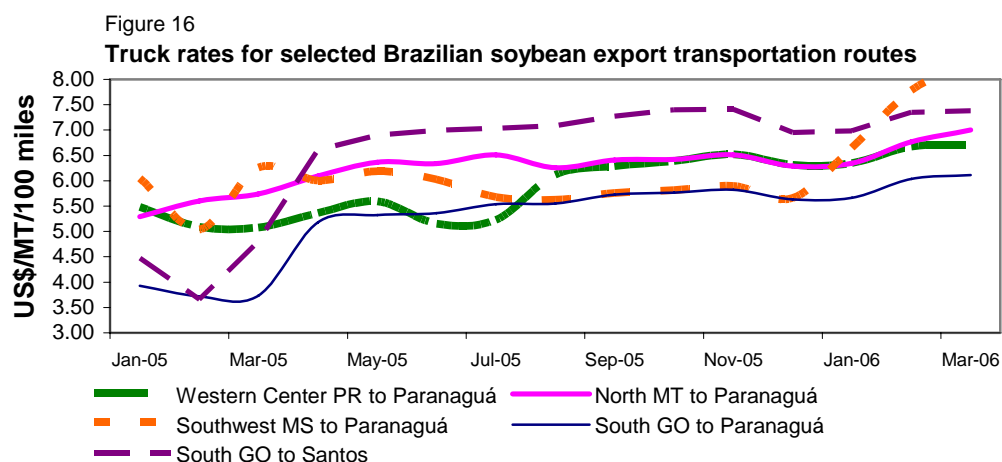
<sup>2</sup>Distance from the main city of the considered region to the mentioned ports

<sup>3</sup>The share is measured as a percentage of total production

<sup>4</sup>US\$ per metric ton (average monthly exchange rate from "Banco Central do Brasil" was used to convert Brazilian reais to the U.S. dollar)

<sup>5</sup>RS = Rio Grande Do Sul, MT= Mato Grosso, GO = Goiás, PR = Paraná, MG = Minas Gerais, BA = Bahia, MS = Mato Grosso Do Sul, SP = São Paulo

Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS



Source: ESALQ/ USP (University of São Paulo, Brazil) and USDA/AMS

**Table 20--Monthly Brazilian soybean export truck transportation cost index**

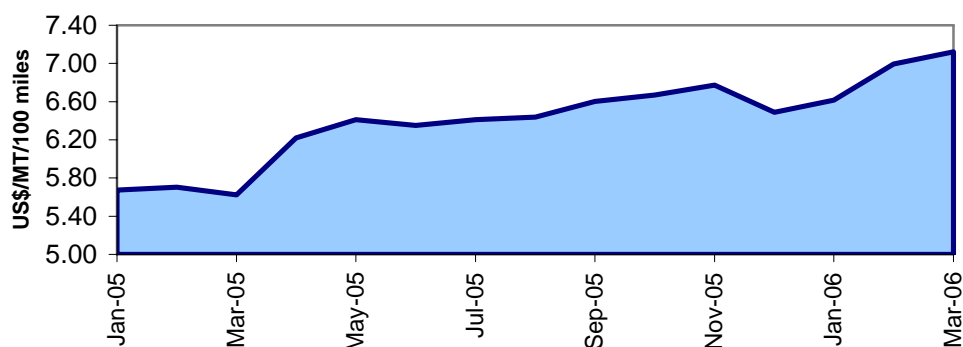
Month	Freight price* (per 100 miles)	Index variation (%) (Base: prior month)	Index value (Base: Jan. 05 = 100)
Jan. 05	5.67		100.00
Feb. 05	5.71	0.5	100.54
Mar. 05	5.62	-1.5	99.08
Apr. 05	6.22	10.6	109.61
May 05	6.41	3.1	112.96
Jun. 05	6.35	-0.9	111.90
Jul. 05	6.41	1.0	112.99
Aug. 05	6.44	0.4	113.46
Sep. 05	6.60	2.5	116.36
Oct. 05	6.67	1.0	117.52
Nov. 05	6.77	1.5	119.33
Dec. 05	6.49	-4.2	114.34
Jan. 06	6.61	1.9	116.56
Feb. 06	6.99	5.8	123.27
Mar. 06	7.12	1.8	125.51

\*weighted average and quoted in US\$ per metric ton

Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

Figure 17

**Brazilian soybean export truck transportation weighted average prices, 2005**



Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

**Table 21--Quarterly ocean freight rates for shipping soybeans from selected Brazilian ports to Hamburg, Germany and Shanghai, China (US\$/metric ton)\***

Ports	Hamburg				Shanghai			
	2006 1 <sup>st</sup> qtr	2006 2 <sup>nd</sup> qtr	2006 3 <sup>rd</sup> qtr	2006 4 <sup>th</sup> qtr	2006 1 <sup>st</sup> qtr	2006 2 <sup>nd</sup> qtr	2006 3 <sup>rd</sup> qtr	2006 4 <sup>th</sup> qtr
Santos	39.51				50.13			
Paranagua	38.51				49.13			
Rio Grande	37.06				48.63			

\*correspond to the average actual values negotiated between shippers and carriers and weighted according to the magnitude of the shipped volumes

Source: Sistema de Informações de Fretes, SIFRECA, ESALQ/USP (University of São Paulo, Brazil)

# Contacts and Links

## Contact Information

### Coordinator

Surajudeen (Deen) Olowolayemo	<a href="mailto:surajudeen.olowolayemo@usda.gov">surajudeen.olowolayemo@usda.gov</a>	(202) 690-1328
Ethel Mitchell	<a href="mailto:ethel.mitchell@usda.gov">ethel.mitchell@usda.gov</a>	(202) 720-1378

### Grain Transportation Indicators

Surajudeen (Deen) Olowolayemo	<a href="mailto:surajudeen.olowolayemo@usda.gov">surajudeen.olowolayemo@usda.gov</a>	(202) 690-1328
-------------------------------	--	----------------

### Rail

Marvin Prater	<a href="mailto:marvin.prater@usda.gov">marvin.prater@usda.gov</a>	(202) 690-6290
Johnny Hill	<a href="mailto:johnny.hill@usda.gov">johnny.hill@usda.gov</a>	(202) 720-4211

### Barge Transportation

Karl Hacker	<a href="mailto:karl.hacker@usda.gov">karl.hacker@usda.gov</a>	(202) 690-0152
Nicholas Marathon	<a href="mailto:nick.marathon@usda.gov">nick.marathon@usda.gov</a>	(202) 690-0331

### Truck Transportation

Karl Hacker	<a href="mailto:karl.hacker@usda.gov">karl.hacker@usda.gov</a>	(202) 690-0152
-------------	--	----------------

### Grain Exports

Johnny Hill	<a href="mailto:johnny.hill@usda.gov">johnny.hill@usda.gov</a>	(202) 720-4211
-------------	--	----------------

### Ocean Transportation

Surajudeen (Deen) Olowolayemo (Freight rates and vessels)	<a href="mailto:surajudeen.olowolayemo@usda.gov">surajudeen.olowolayemo@usda.gov</a>	(202) 690-1328
April Taylor (Container rates)	<a href="mailto:april.taylor@usda.gov">april.taylor@usda.gov</a>	(202) 690-1326

**Subscription Information:** To subscribe to the GTR for a weekly email copy, please contact Deen Olowolayemo at [surajudeen.olowolayemo@usda.gov](mailto:surajudeen.olowolayemo@usda.gov) or 202-690-1328 (1303) (*printed copies are also available upon request*).

## Related Websites

*Agricultural Container Indicators*  
*Ocean Rate Bulletin*

<http://www.ams.usda.gov/tmd2/agci/>  
<http://www.ams.usda.gov/tmd/Ocean/index.asp>

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation or marital or family status. (Not all prohibited bases apply to all programs). Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotope, etc.) should contact the USDA's TARGET Center at (202)720-2600 (Voice and TDD).

To file a complaint of discrimination, write USDA, Director of Civil Rights, Room 326-W, Whitten Building, 14<sup>th</sup> and Independence Avenue, SW, Washington, DC 20250-9410, or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.